CLAIMS

What is claimed is:

1 1. A method for verifying information on a managed device, comprising:

2   receiving a management request containing one or more values comprising proposals

3   for a correct value of a managed object of the managed device;

4   determining whether any of the one or more values match the correct value of the

5   managed object; and

6   transmitting a notification message indicating whether any of the one or more values

7   match the correct value of the managed object.

1 2. The method of Claim 1, wherein the management request is a SNMP request, and

2   wherein the managed object is a SNMP MIB object.

1 3. The method of Claim 2, wherein the notification message identifies which one of the

2   one or more values match the correct value of the SNMP MIB.

1 4. The method of Claim 2, wherein the SNMP request conforms to any of SNMP

2   version 1, SNMP version 2, or SNMP version 3.

1 5. The method of Claim 2, wherein the one or more values are stored in the SNMP

2   request in a VarBind portion.

1 6. The method of Claim 2, wherein a specification for the SNMP MIB object is not

2   generally available.

1 7. The method of Claim 2, wherein the SNMP MIB object stores an attribute for a

2   protocol other than SNMP.

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1   8.   The method of Claim 2, wherein the SNMP MIB object stores a username or a

2   password for one member of the following group consisting of: a telnet protocol, a

3   SSH protocol, a TFTP protocol, a RCP protocol, a SNMP protocol, a TACACS

4   protocol, and a RADIUS protocol.

1   9.   The method of Claim 2, wherein the determining step results in determining that none

2   of the one or more values match the correct value of the SNMP MIB object, and

3   wherein the transmitting step comprises transmitting a notification message that

4   includes an error message that describes an encountered problem in determining

5   whether the one or more values match the correct value of the SNMP MIB object.

1   10.   The method of Claim 2, wherein the notification message is transmitted using SNMP.

1   11.   A method as recited in Claim 2, wherein the SNMP request is an SNMP GET request.

1   12.   A method as recited in Claim 2, wherein the SNMP request is an SNMP GETNEXT

2   request.

1   13.   A method as recited in Claim 2, wherein the SNMP request is an SNMP GETBULK

2   request.

1   14.   A method as recited in Claim 2, wherein the transmitting step comprises the step of

2   storing, in a specified MIB object of the managed device, a notification value

3   indicating whether any of the one or more values match the correct value of the

4   SNMP MIB object.

1   15.   The method of Claim 2, wherein the SNMP MIB object stores information about a

2   prompt.

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1 16.   A method for verifying information on a managed device, comprising:

2   receiving a request containing one or more values comprising proposals for a correct

3   value of a SNMP MIB object of the managed device;

4   determining whether any of the one or more values match the correct value of the

5   SNMP MIB object; and

6   transmitting a notification message indicating whether any of the one or more values

7   match the correct value of the SNMP MIB object.

1 17.   The method of Claim 16, wherein the notification message identifies which one of the

2   one or more values match the correct value of the SNMP MIB.

1 18.   The method of Claim 16, wherein a specification for the SNMP MIB object is not

2   generally available.

1 19.   The method of Claim 16, wherein the SNMP MIB object stores an attribute for a

2   protocol other than SNMP.

1 20.   The method of Claim 16, wherein the SNMP MIB object stores a username or a

2   password for one member of the following group consisting of: a telnet protocol, a

3   SSH protocol, a TFTP protocol, a RCP protocol, a SNMP protocol, a TACACS

4   protocol, and a RADIUS protocol.

1 21.   The method of Claim 16, wherein the determining step results in determining that

2   none of the one or more values match the correct value of the SNMP MIB object, and

3   wherein the transmitting step comprises transmitting a notification message that

4   includes an error message that describes an encountered problem in determining

5   whether the one or more values match the correct value of the SNMP MIB object.

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1   22.   The method of Claim 16, wherein the transmitting step comprises the step of storing,

2   in a specified MIB object of the managed device, a notification value indicating

3   whether any of the one or more values match the correct value of the SNMP MIB

4   object.

1   23.   A computer-readable medium carrying one or more sequences of instructions for

2   verifying information on a managed device, wherein execution of the one or more

3   sequences of instructions by one or more processors causes the one or more

4   processors to perform the steps of:

5   receiving a management request containing one or more values comprising proposals

6   for a correct value of a managed object of the managed device;

7   determining whether any of the one or more values match the correct value of the

8   managed object; and

9   transmitting a notification message indicating whether any of the one or more values

10   match the correct value of the managed object.

1   24.   The computer-readable medium of Claim 23, wherein the management request is a

2   SNMP request, and wherein the managed object is a SNMP MIB object.

1   25.   The computer-readable medium of Claim 24, wherein the notification message

2   identifies which one of the one or more values match the correct value of the SNMP

3   MIB.

1   26.   The computer-readable medium of Claim 24, wherein the SNMP request conforms to

2   any of SNMP version 1, SNMP version 2, or SNMP version 3.

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1   27.   The computer-readable medium of Claim 24, wherein the one or more values are

2   stored in the SNMP request in a VarBind portion.

1   28.   The computer-readable medium of Claim 24, wherein a specification for the SNMP

2   MIB object is not generally available.

1   29.   The computer-readable medium of Claim 24, wherein the SNMP MIB object stores

2   an attribute for a protocol other than SNMP.

1   30.   The computer-readable medium of Claim 24, wherein the SNMP MIB object stores a

2   username or a password for one member of the following group consisting of: a telnet

3   protocol, a SSH protocol, a TFTP protocol, a RCP protocol, a SNMP protocol, a

4   TACACS protocol, and a RADIUS protocol.

1   31.   The computer-readable medium of Claim 24, wherein the determining step results in

2   determining that none of the one or more values match the correct value of the SNMP

3   MIB object, and wherein the transmitting step comprises transmitting a notification

4   message that includes an error message that describes an encountered problem in

5   determining whether the one or more values match the correct value of the SNMP

6   MIB object.

1   32.   The computer-readable medium of Claim 24, wherein the notification message is

2   transmitted using SNMP.

1   33.   A computer-readable medium as recited in Claim 24, wherein the SNMP request is an

2   SNMP GET request.

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1   34.   A computer-readable medium as recited in Claim 24, wherein the SNMP request is an

2   SNMP GETNEXT request.

1   35.   A computer-readable medium as recited in Claim 24, wherein the SNMP request is an

2   SNMP GETBULK request.

1   36.   A computer-readable medium as recited in Claim 24, wherein the transmitting step

2   comprises the step of storing, in a specified MIB object of the managed device, a

3   notification value indicating whether any of the one or more values match the correct

4   value of the SNMP MIB object.

1   37.   The computer-readable medium of Claim 24, wherein the SNMP MIB object stores

2   information about a prompt.

1   38.   A computer-readable medium for verifying information on a managed device,

2   comprising:

3   receiving a request containing one or more values comprising proposals for a correct

4   value of a SNMP MIB object of the managed device;

5   determining whether any of the one or more values match the correct value of the

6   SNMP MIB object; and

7   transmitting a notification message indicating whether any of the one or more values

8   match the correct value of the SNMP MIB object.

1   39.   The computer-readable medium of Claim 38, wherein the notification message

2   identifies which one of the one or more values match the correct value of the SNMP

3   MIB.

1 40. The computer-readable medium of Claim 38, wherein a specification for the SNMP

2 MIB object is not generally available.

1 41. The computer-readable medium of Claim 38, wherein the SNMP MIB object stores

2 an attribute for a protocol other than SNMP.

1 42. The computer-readable medium of Claim 38, wherein the SNMP MIB object stores a

2 username or a password for one member of the following group consisting of: a telnet

3 protocol, a SSH protocol, a TFTP protocol, a RCP protocol, a SNMP protocol, a

4 TACACS protocol, and a RADIUS protocol.

1 43. The computer-readable medium of Claim 38, wherein the determining step results in

2 determining that none of the one or more values match the correct value of the SNMP

3 MIB object, and wherein the transmitting step comprises transmitting a notification

4 message that includes an error message that describes an encountered problem in

5 determining whether the one or more values match the correct value of the SNMP

6 MIB object.

1 44. The computer-readable medium of Claim 38, wherein the transmitting step comprises

2 the step of storing, in a specified MIB object of the managed device, a notification

3 value indicating whether any of the one or more values match the correct value of the .

4 SNMP MIB object.

1 45. An apparatus for verifying information on a managed device, comprising:

2 means for receiving a management request containing one or more values comprising

3 proposals for a correct value of a managed object of the managed device;

4   means for determining whether any of the one or more values match the correct value

5   of the managed object; and

6   means for transmitting a notification message indicating whether any of the one or

7   more values match the correct value of the managed object.

1   46.   The apparatus of Claim 45, wherein the management request is a SNMP request, and

2   wherein the managed object is a SNMP MIB object.

1   47.   The apparatus of Claim 46, wherein the notification message identifies which one of

2   the one or more values match the correct value of the SNMP MIB.

1   48.   The apparatus of Claim 46, wherein the SNMP request conforms to any of SNMP

2   version 1, SNMP version 2, or SNMP version 3.

1   49.   The apparatus of Claim 46, wherein the one or more values are stored in the SNMP

2   request in a VarBind portion.

1   50.   The apparatus of Claim 46, wherein a specification for the SNMP MIB object is not

2   generally available.

1   51.   The apparatus of Claim 46, wherein the SNMP MIB object stores an attribute for a

2   protocol other than SNMP.

1   52.   The apparatus of Claim 46, wherein the SNMP MIB object stores a username or a

2   password for one member of the following group consisting of: a telnet protocol, a

3   SSH protocol, a TFTP protocol, a RCP protocol, a SNMP protocol, a TACACS

4   protocol, and a RADIUS protocol.

1 53. The apparatus of Claim 46, wherein the means for determining determines that none

2 of the one or more values match the correct value of the SNMP MIB object, and

3 wherein the means for transmitting transmits a notification message that includes an

4 error message that describes an encountered problem in determining whether the one

5 or more values match the correct value of the SNMP MIB object.

1 54. The apparatus of Claim 46, wherein the notification message is transmitted using

2 SNMP.

1 55. An apparatus as recited in Claim 46, wherein the SNMP request is an SNMP GET

2 request.

1 56. An apparatus as recited in Claim 46, wherein the SNMP request is an SNMP

2 GETNEXT request.

1 57. An apparatus as recited in Claim 46, wherein the SNMP request is an SNMP

2 GETBULK request.

1 58. An apparatus as recited in Claim 46, wherein the means for transmitting comprises

2 means for storing, in a specified MIB object of the managed device, a notification

3 value indicating whether any of the one or more values match the correct value of the

4 SNMP MIB object.

1 59. The apparatus of Claim 46, wherein the SNMP MIB object stores information about a

2 prompt.

1 60. An apparatus for verifying information on a managed device, comprising:

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2   means for receiving a request containing one or more values comprising proposals for

3   a correct value of a SNMP MIB object of the managed device;

4   means for determining whether any of the one or more values match the correct value

5   of the SNMP MIB object; and

6   means for transmitting a notification message indicating whether any of the one or

7   more values match the correct value of the SNMP MIB object.

1   61.   The apparatus of Claim 60, wherein the notification message identifies which one of

2   the one or more values match the correct value of the SNMP MIB.

1   62.   The apparatus of Claim 60, wherein a specification for the SNMP MIB object is not

2   generally available.

1   63.   The apparatus of Claim 60, wherein the SNMP MIB object stores an attribute for a

2   protocol other than SNMP.

1   64.   The apparatus of Claim 60, wherein the SNMP MIB object stores a username or a

2   password for one member of the following group consisting of: a telnet protocol, a

3   SSH protocol, a TFTP protocol, a RCP protocol, a SNMP protocol, a TACACS

4   protocol, and a RADIUS protocol.

1   65.   The apparatus of Claim 60, wherein the means for determining determines that none

2   of the one or more values match the correct value of the SNMP MIB object, and

3   wherein the means for transmitting transmits a notification message that includes an

4   error message that describes an encountered problem in determining whether the one

5   or more values match the correct value of the SNMP MIB object.

1   66.   The apparatus of Claim 60, wherein the means for transmitting comprises means for

2   storing, in a specified MIB object of the managed device, a notification value

3   indicating whether any of the one or more values match the correct value of the

4   SNMP MIB object.

1   67.   An apparatus, comprising:

2   one or more processors; and

3   a computer-readable medium carrying one or more sequences of instructions for

4   verifying information on a managed device, wherein execution of the one or

5   more sequences of instructions by the one or more processors causes the one

6   or more processors to perform the steps of:

7   receiving a management request containing one or more values comprising

8   proposals for a correct value of a managed object of the managed

9   device;

10   determining whether any of the one or more values match the correct value of

11   the managed object; and

12   transmitting a notification message indicating whether any of the one or more

13   values match the correct value of the managed object.

1   68.   The apparatus of Claim 67, wherein the management request is a SNMP request, and

2   wherein the managed object is a SNMP MIB object.

1   69.   The apparatus of Claim 68, wherein the notification message identifies which one of

2   the one or more values match the correct value of the SNMP MIB.

1 70. The apparatus of Claim 68, wherein the SNMP request conforms to any of SNMP

2 version 1, SNMP version 2, or SNMP version 3.

1 71. The apparatus of Claim 68, wherein the one or more values are stored in the SNMP

2 request in a VarBind portion.

1 72. The apparatus of Claim 68, wherein a specification for the SNMP MIB object is not

2 generally available.

1 73. The apparatus of Claim 68, wherein the SNMP MIB object stores an attribute for a

2 protocol other than SNMP.

1 74. The apparatus of Claim 68, wherein the SNMP MIB object stores a username or a

2 password for one member of the following group consisting of: a telnet protocol, a

3 SSH protocol, a TFTP protocol, a RCP protocol, a SNMP protocol, a TACACS

4 protocol, and a RADIUS protocol.

1 75. The apparatus of Claim 68, wherein the determining step results in determining that

2 none of the one or more values match the correct value of the SNMP MIB object, and

3 wherein the transmitting step comprises transmitting a notification message that

4 includes an error message that describes an encountered problem in determining

5 whether the one or more values match the correct value of the SNMP MIB object.

1 76. The apparatus of Claim 68, wherein the notification message is transmitted using

2 SNMP.

1 77. An apparatus as recited in Claim 68, wherein the SNMP request is an SNMP GET

2 request.

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1   78.   An apparatus as recited in Claim 68, wherein the SNMP request is an SNMP

2   GETNEXT request.

1   79.   An apparatus as recited in Claim 68, wherein the SNMP request is an SNMP

2   GETBULK request.

1   80.   An apparatus as recited in Claim 68, wherein the transmitting step comprises the step

2   of storing, in a specified MIB object of the managed device, a notification value

3   indicating whether any of the one or more values match the correct value of the

4   SNMP MIB object.

1   81.   The apparatus of Claim 68, wherein the SNMP MIB object stores information about a

2   prompt.

1   82.   An apparatus, comprising:

2   one or more processors; and

3   a computer-readable medium carrying one or more sequences of instructions for

4   verifying information on a managed device, wherein execution of the one or

5   more sequences of instructions by the one or more processors causes the one

6   or more processors to perform the steps of:

7   receiving a request containing one or more values comprising proposals for a

8   correct value of a SNMP MIB object of the managed device;

9   determining whether any of the one or more values match the correct value of

10   the SNMP MIB object; and

11   transmitting a notification message indicating whether any of the one or more

12   values match the correct value of the SNMP MIB object.

1 83. The apparatus of Claim 82, wherein the notification message identifies which one of

2 the one or more values match the correct value of the SNMP MIB.

1 84. The apparatus of Claim 82, wherein a specification for the SNMP MIB object is not

2 generally available.

1 85. The apparatus of Claim 82, wherein the SNMP MIB object stores an attribute for a

2 protocol other than SNMP.

1 86. The apparatus of Claim 82, wherein the SNMP MIB object stores a username or a

2 password for one member of the following group consisting of: a telnet protocol, a

3 SSH protocol, a TFTP protocol, a RCP protocol, a SNMP protocol, a TACACS

4 protocol, and a RADIUS protocol.

1 87. The apparatus of Claim 82, wherein the determining step results in determining that

2 none of the one or more values match the correct value of the SNMP MIB object, and

3 wherein the transmitting step comprises transmitting a notification message that

4 includes an error message that describes an encountered problem in determining

5 whether the one or more values match the correct value of the SNMP MIB object.

1 88. The apparatus of Claim 82, wherein the transmitting step comprises the step of

2 storing, in a specified MIB object of the managed device, a notification value

3 indicating whether any of the one or more values match the correct value of the

4 SNMP MIB object.